Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Applicant notes that Hayashi et al. (U.S. Patent No. 6,035,253), which is one of the references cited in the Office action, dated January 16, 2003, is not listed in the Notice of References Cited or in the Information Disclosure Citation.

Claim 1 has been amended to more clearly point out the subject matter which applicant regards as the invention. No new matter has been added

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubschneider et al. (U.S. Pub. No. US 2002/0091486 A1) in view of Hayashi et al. (U.S. Patent No. 6,035,253). For the following reasons, the examiner's rejection is respectfully traversed.

None of the references disclose or suggest transmitting "on-road location information by using road shape data including said on-road location consisting of a string of coordinates representing the road shape of a road section having a length that depends on the situation and relative data indicating said on-road location in said road section" or performing "shape matching using said road shape data to identify said road section" as recited in claim 1. The office action cites Hayashi for teaching these features (Office action 1/16/2003, page 3).

Hayashi stores location data of roads and other structures in order that these structures can be displayed on a road-profiled map (col. 17, line 59, to col. 8, line 35; Fig. 14(A)). In Hayashi, this data may include coordinate data that are connected with a line, so as to display the shape of each structure (col. 8, lines 19-25; Fig. 14(B)). However, Hayashi does not transmit on-road location information by using these road-profiled map coordinates, and the road-profiled

map coordinates do not include the on-road location. Hayashi also does not perform shape matching using road shape data to identify a road section. Therefore, even if combined, the references do not disclose or suggest all the elements of the claimed invention.

Furthermore, there is no suggestion or motivation for one skilled in the art at the time the invention was made to combine Hubschneider and Hayashi to arrive at the claimed invention. The mere fact that the references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP §2143.01; *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Hubschneider discloses a navigation system that receives route information from a central unit (paragraphs 28-29). Hayashi discloses a navigation system that uses a node series pointer and a road length to represent and determine a road in the road network (col. 9, lines 6-18; Figs. 4 and 5(B)). Since Hayashi uses a node series pointer and a road length to determine a road in the road network, there is no need or motivation to use the coordinate data to represent roads in the road network or to determine a road in the road network. No showing in the Office action has been made of a suggestion or motivation in Hubschneider or Hayashi to make the proposed modification. The desirability of such a modification is found only in the Applicant's own description of the invention, in contrast to the requirement that the teaching or suggestion to make the modification must be found in the prior art, and not based on the applicant's disclosure. Thus, the Office action has not established a *prima facie* case of obviousness.

Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubschneider et al. in view of Hayashi et al. and Lee (U.S. Patent No. 6,233,518). For the following reasons, the examiner's rejection is respectfully traversed.

None of the references disclose or suggest "a location information converter for converting transmit on-road location information to road shape data including said on-road

location consisting of a string of coordinates representing the road shape of a road section having a length that depends on the situation and relative data indicating said on-road location in said road section" as recited in claim 12. The Office action cites Lee as teaching a location information converter (Office action 1/16/2003, page 4).

Lee teaches a location information converter that converts a real entity, such as a road, into an image vector entity, such as a line vector that starts a one position and ends at another position or two line vectors connected to each other (col. 9, lines 1-28). However, Lee does not teach converting transmitted on-road location information to road shape data including an on-road location consisting of a string of coordinates representing the road shape of a road section. As mentioned for claim 1, the combination of Hubschneider and Hayashi also does not teach or suggest transmitted on-road location information using road shape data including the on-road location consisting of a string of coordinates representing the road shape of a road section. Therefore, even if combined, the references do not disclose or suggest all the elements of the claimed invention.

None of the references disclose or suggest "a shape matching section for performing shape matching by using said road shape data" as recited in claim 12. As mentioned previously for claim 1, neither Hubschneider nor Hayashi performs shape matching by using road shape data. Lee also does not teach or suggest performing shape matching by using road shape data. Therefore, even if combined, the references do not disclose all the elements of the claimed invention.

Furthermore, there is no suggestion or motivation for one skilled in the art at the time the invention was made to combine Hubschneider, Hayashi, and Lee to arrive at the claimed invention. The mere fact that the references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP

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§2143.01; *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Since Hayashi uses a node series pointer and a road length to determine a road in the road network, there is no need or motivation to use the coordinate data to represent roads in the road network or to determine a road in the road network. No showing in the Office action has been made of a suggestion or motivation in Hubschneider, Hayashi, or Lee to make the proposed modification. The desirability of such a modification is found only in the Applicant's own description of the invention, in contrast to the requirement that the teaching or suggestion to make the modification must be found in the prior art, and not based on the applicant's disclosure. Thus, the Office action has not established a *prima facie* case of obviousness.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 34409.

Respectfully submitted,

PEARNE & GORDON LLP

By: Suzanne B. Gagnon, Reg. No. 48924

526 Superior Avenue, East
Suite 1200
Cleveland, Ohio 44114-1484
(216) 579-1700

Date: March 18, 2003

IN THE CLAIMS:

Claim 1 has been amended in the following manner:

1   1. (Amended) A location information transmission method for reporting on-road

2   location on a digital map,

3   characterized in that an information provider transmits on-road location

4   information by using road shape data including said on-road location [information]

5   consisting of a string of coordinates representing the road shape of a road section having

6   a length the depends on the situation and relative data indicating said on-road location in

7   said road section; and

8   that a party receiving said on-road location information performs shape matching

9   <u>using said road shape data</u> to identify said road section on the digital map and uses said

10   relative data to identify the on-road location in said road section.